

ETHICS FOR ANALYTICS

SURVEY ANALYSIS ON DISTANCE LEARNING



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Date: 08-12-2022

1. Survey Summary

When studying online, feedback enables the student to evaluate their development and identify possible areas for growth. It stimulates reflective thinking, better retention of information, and productive dialogue with teachers or other online students. The Survey can help institutions to act and consider improvements to stabilize the current learning environment.

2. Purpose

The goal of this research study is to determine what students enjoy about the current arrangements and what they would like to alter in the current distance learning environment.

3. Methodology/Process

As a part of the course curriculum, I have prepared a survey using Microsoft Forms with roughly 17 questions which have questions that focus on demographics, sentiment analysis, and critical opinions of random 16 students selected from various regions and their suggestions/opinions for distance learning setup. This helped me to visualize the data collected from the survey and analyze using Google Looker Studio.

4. Survey Scope

The survey opens a chance for educational institutions to receive feedback from students and their opinions which they can use to alter the current learning environment.

5. Ethical Principals.

- a. Consent – Consent is typically the permission of the respondent for the collection of personal or critical data. At the end of the survey, in Q-18, I have taken the consent of the respondent for their data to be collected, stored, and used for analysis.
- b. Clarity – In Question 18, the link provided, I have mentioned that the respondent's answers will be used to conduct a research study to determine what students enjoy in the current arrangement and furthermore, how data will be destroyed post-completion of the study.
- c. Consistency – As Clearly mentioned, the user's data will be locked in google drive and only the course instructor and I will be able to see data. Moreover, the data will not be used in any report and responses will be anonymous.
- d. Control – I will be primarily handling the data and safeguarding the interest of the respondent. Moreover, the course instructor will have the access to view only data. If a respondent requests for data to be removed, I will delete the record from the protected google drive.
- e. Consequences – The data is collected with an intention of conducting research on students' expectations and feedback and is not intended to harm the sentiments or

personally in any case since the results of the analysis will be shared with only management and not made public.

6. Raw Dataset (Survey1.csv)

[illegible]

7. Cleaned Dataset (Survey2.csv)

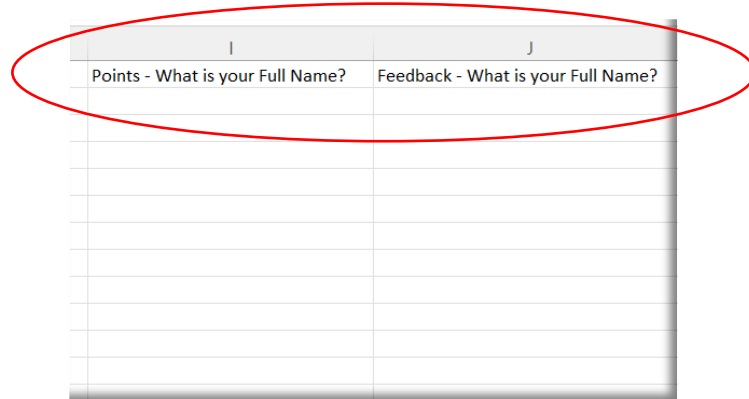
[illegible]

8. Data Cleaning

a. Unwanted Columns.

Issue- There were unnecessary columns containing points and feedback for all the survey questions.

Action - I removed all such columns since they were not useful for any analysis.

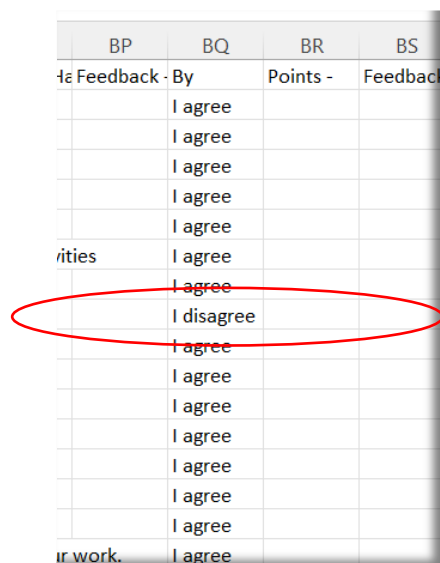


I	J
Points - What is your Full Name?	Feedback - What is your Full Name?

b. Disagreement on consent.

Issue – There was one respondent where respondent disagreed with the consent to data collection policy.

Action - Removed the sample response of the respondents where they disagreed with the consent to data collection policy to maintain integrity and confidentiality.

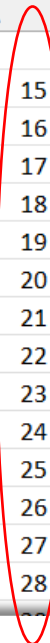


BP	BQ	BR	BS
Feedback - By		Points -	Feedback
	I agree		
	I agree		
	I agree		
	I agree		
	I agree		
ities	I agree		
	I agree		
	I disagree		
	I agree		
	I agree		
	I agree		
	I agree		
	I agree		
	I agree		
	I agree		
ir work.	I agree		

c. Unexpected ID Error

Issue – The id number started from 15 rather than one because of the earlier demo responses collected.

Action – I manually corrected and adjusted them to start from 1.



	A	B	C
1	ID	Start time	Completi
2	15	11-30-22 1	11-30-22 1
3	16	11-30-22 1	11-30-22 1
4	17	11-30-22 1	11-30-22 1
5	18	11-30-22 1	11-30-22 1
6	19	11-30-22 1	11-30-22 1
7	20	11-30-22 1	11-30-22 1
8	21	11-30-22 1	11-30-22 1
9	22	11-30-22 1	11-30-22 1
10	23	11-30-22 1	11-30-22 1
11	24	11-30-22 1	11-30-22 1
12	25	11-30-22 2	11-30-22 2
13	26	11-30-22 2	11-30-22 2
14	27	11-30-22 2	11-30-22 2
15	28	11-30-22 2	11-30-22 2

d. Consistency in responses.

1. Issue - For the response to the question, “Which assignments or activities in this course do you believe to be the most interesting?” there is the inconsistency of null responses.

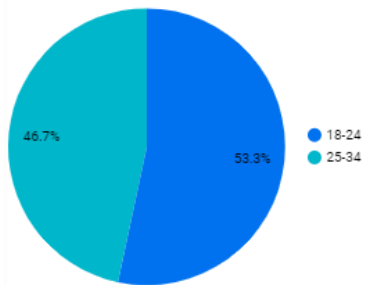
Action – I changed responses like “Na”, and “None” to “NA”.

2. Issue – Similar to 3rd step, for the question, “Have you got any recommendations for us? Is there anything we could offer or do differently, in your opinion?”, I changed the nulls or not responded to “NA”

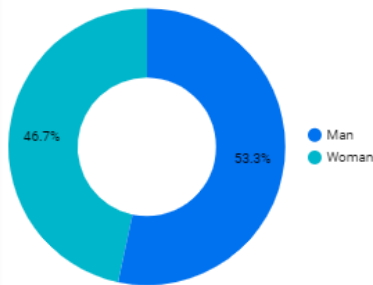
9. Dashboard (Google Looker Studio)

DISTANCE LEARNING EXPERIENCE SURVEY ANALYSIS

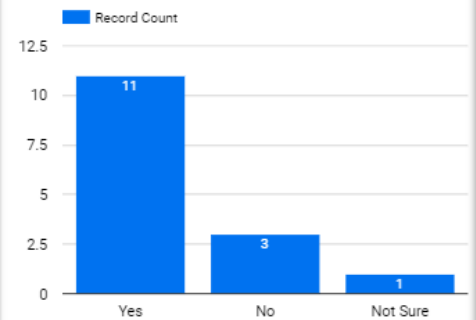
Respondents Age



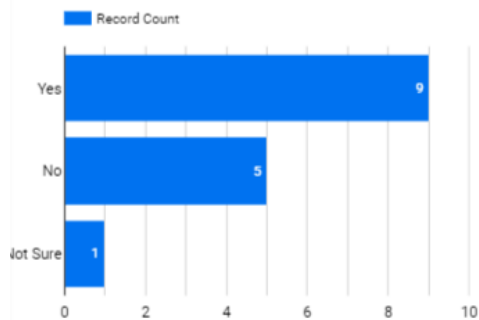
Respondents Gender



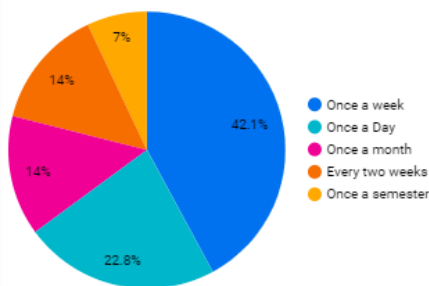
Do you enjoy learning remotely?



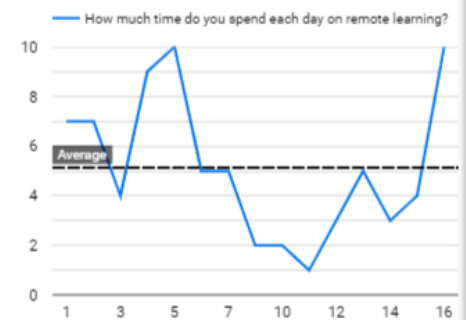
Is Respondent Happy with Tools and technique used?



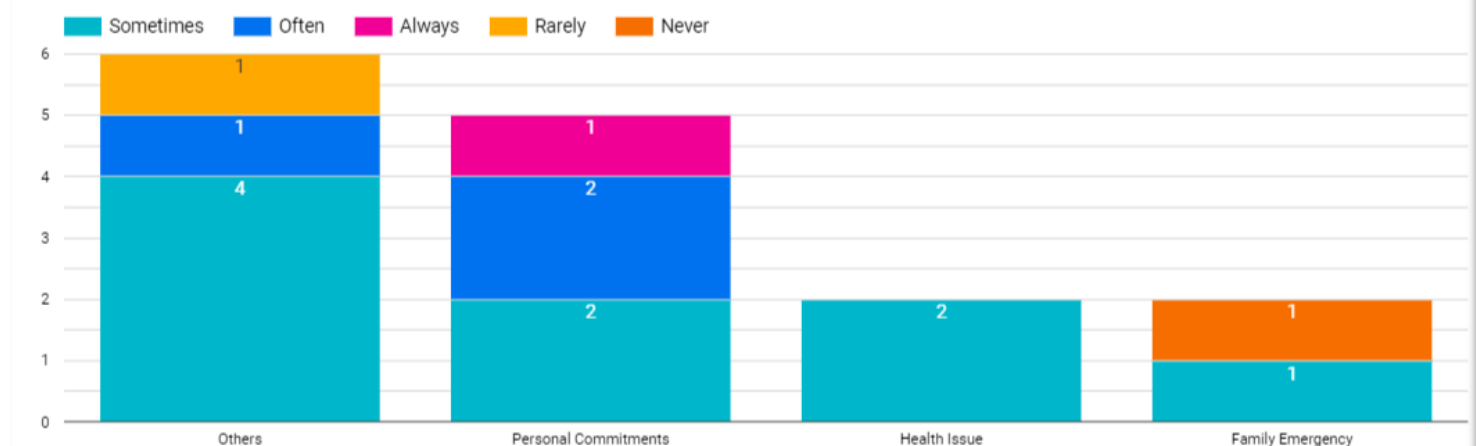
Communication with Fellow Students



How much time are respondents utilizing for online studies

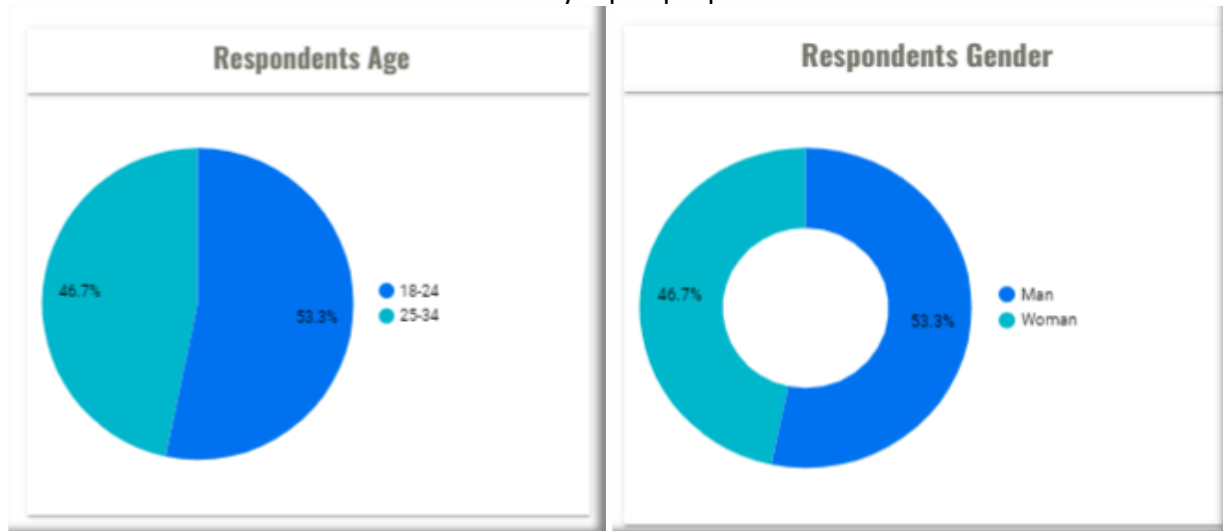


Reasons for missing online lectures v/s Time Management

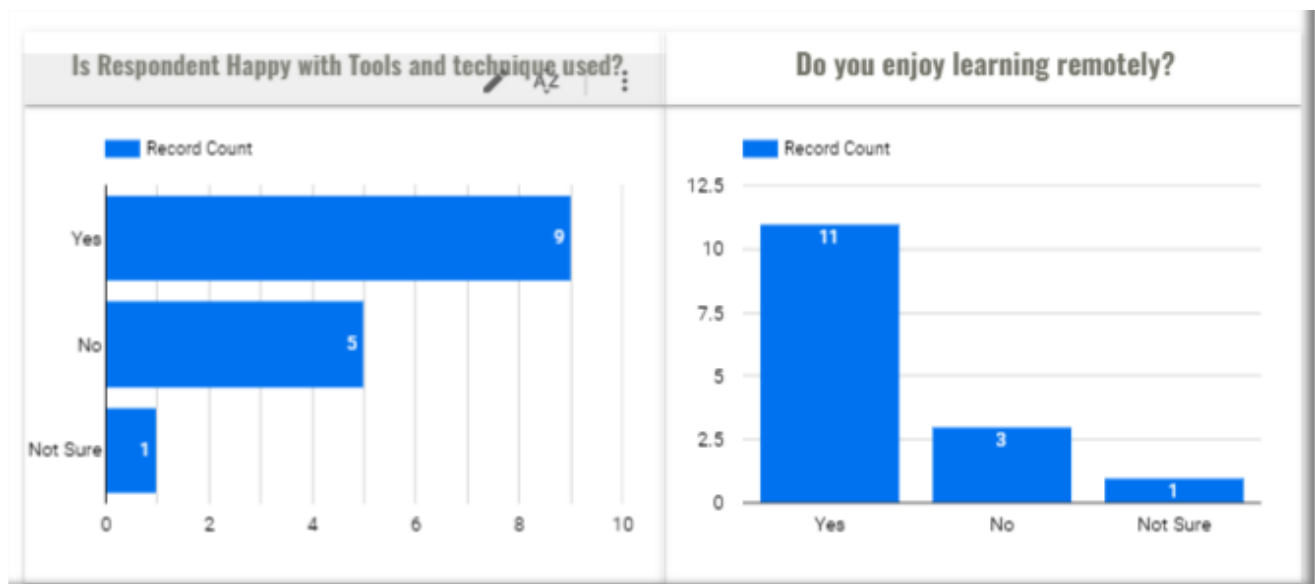


10. Visual Analysis.

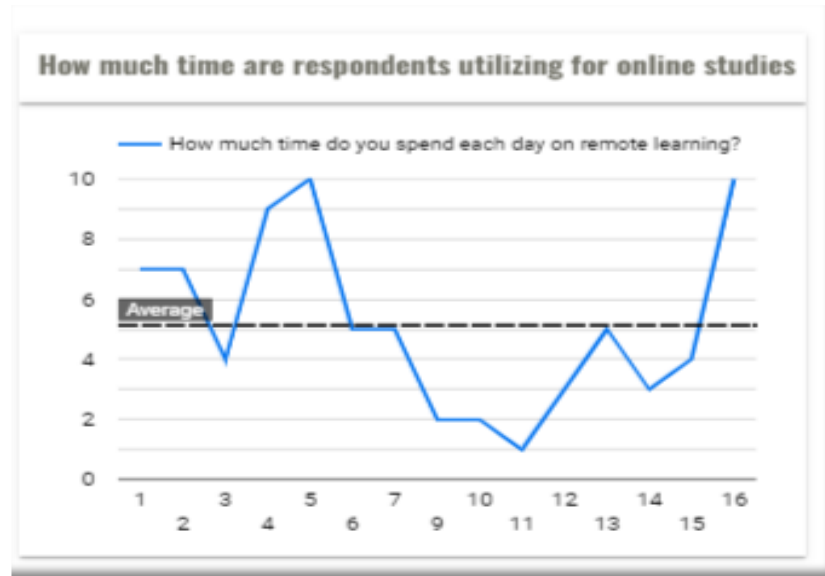
- a. Demographic Analysis – The respondents were majorly distributed from the age bracket of 18-24 and 25-34 and were closely equal proportionate between men and women.



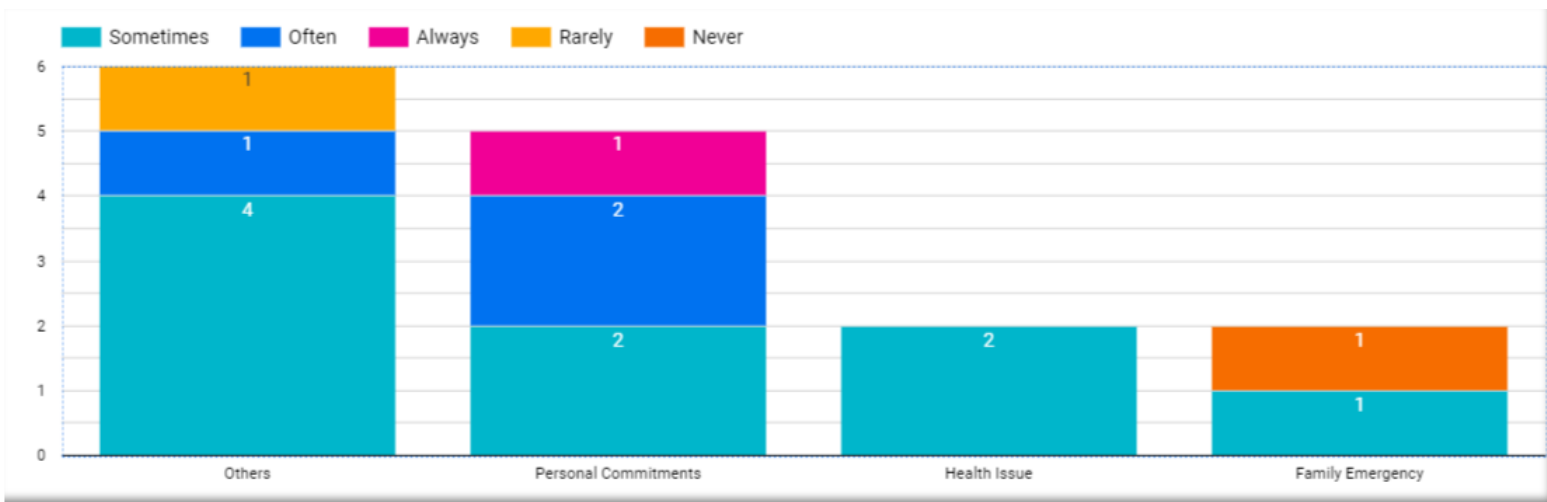
- b. Students Satisfaction – Close to 70% of the students responded that they are enjoying the current remote learning set up and out of them ~60% of the students are happy with the tools and techniques used for online studies.



- c. Time Analysis – Students on average are spending close to 5 hours every day in online classes which as compared to the traditional method is sufficient for them to cope with their studies.



- d. Reasons for missing online lectures v/s Time Management – The below graph shows that the students who missed the online lecture due to Family emergencies were either never or sometimes able to manage their time for online studies. Moreover, students who missed classes due to Health issues were only sometimes able to manage their time for online sessions.



11. Critical Analysis –

- For the respondents in the age bracket 18-24, a major proportion of respondents were men, and 75% of them enjoyed the remote learning setup however, only 50% of them are happy with the tools and techniques being used for online teaching. Whereas respondents in the age group of 25-34, 75% of them are happy with the current technology being used.
- Almost all women said that they enjoyed online studies and on average most of them were spending less than 4 hours on online studies on average.
- Students who used to miss classes due to health issues were only from the age group – 18-24 and 62.5% of them used to communicate with fellow students once a month.
- Women from the age group 25-34 never missed classes due to Health or personal issues. Whereas women from the age group 18-24 mostly missed the classes due to Personal or other reasons.

12. Links

Looker Studio (aka Data Studio) Dashboard –

<https://datastudio.google.com/reporting/6e00fb8e-991c-40c7-b0fc-9771a1c5c24d>

Microsoft Form –

<https://forms.office.com/r/zzKiGkSsD7>

13. Recommendation -

Since the student is responsible for interacting with the course rather than just turning up to class on a scheduled day and time, online courses help students learn better time management skills. Consequently, students improve their time management abilities in addition to learning new information from their education. Educational institutions should focus on improving the tools and technologies used to deliver online classes.

